

Western Energy Company

Thirty- Five Years of Reclamation
at the Rosebud Mine

Western Energy Company

- Colstrip was founded in 1923
- Mining started in 1924
- Coal used for rail locomotives
- Mining ceased in 1958 (diesel locomotives)
- Montana Power purchased reserves/town in 1966
- WECO started mining in 1968
- Subsidiary of Westmoreland mining LLC since 2001.
- In production 36 years.
- More than 370 million tons of coal have been produced to date.

Montana Mine Permitting History

- 1973 – Montana Strip and Underground Mine Reclamation Act
- 1977- Surface Mine Control and Reclamation Act
- 1982 – Montana State Program approved by the Office of Surface Mining

Current Coal Mine Regulation and the Permitting Process

- Pre-mine surveys
- Mine Plan
- Post-Mine Topography (PMT)
- Permit submittal
- Permit review and approval
- Annual reporting

NP Spoils









Pit 6

- July, 1968 WEC Co shipped its first load of coal from Pit 6.
- 1974 - Operations move west to Pit 6 extension.
- 1975 - Pit 6 Extension was mined out.
- 1975-1976 - Final Reclamation

Pit 6

- Reclamation Procedures
 - No topsoil savaged or replaced
 - Minimal spoil regrading
 - Through drainages constructed
 - Non-native grass species allowed in seed mix











Area E

- Mining Summary
 - Mining began in 1976
 - Mining completed in 1987
 - Final reclamation completed in 1999

Area E

- Reclamation Summary
 - Uniform soil replacement
 - Slopes regraded to 5:1 or less
 - Native seed mixes became a requirement
 - Geomorphic drainage designs are required
 - Bluff extensions permitted as experimental practice











Current Reclamation

- Steeper slope reclamation to tie into adjacent native slopes preserving existing sandstone outcrops and ridges and trees
- Topsoil depth variance to promote vegetation diversity (shrubs and trees) for wildlife habitat
- Pit impoundment permitted









Resource Development Economics

- Employment
 - 79 Salaried
 - 286 Hourly – average wage \$24.00/hour
- Payroll - >\$21 million
- Taxes
 - Production taxes to Montana >\$18 million
 - >\$14 million Severance Taxes
 - >\$300K Resource Indemnity Trust Taxes
 - >\$3.5 million Gross Proceeds Taxes

Restoration Opportunities

- Final Bond Release – Restore the land to the landowner
 - Minimum time required by regulation is 10 years from seeding.
- Problem
 - Process takes much longer.
 - Very few acres eligible based on the time requirement have been released.

Restoration Opportunities

- The reclaimed acres meet requirements for sustainable grazing and wildlife use, but may not meet an ecological measurement from a reference area due to age of the reclamation i.e. diversity of shrub species, reproduction of shrubs or trees, mix of warm/cool season grasses.
- Potential Solution
 - Establishment of reasonable success standards based on the post-mining land use i.e. vegetation production for grazing land or shrub/tree density for wildlife habitat.